



### Model Number

#### KH-LCD-24-24VDC

LCD operating hours counter with 24 V<sub>DC</sub> supply voltage

### Features

- Timer/hour meter
- Separate start input available
- Easy-to-read 7-digit LCD display
- Lockable reset
- Protection degree IP65 (front only)

## Technical data

### General specifications

Data storage	EEPROM
--------------	--------

### Indicators/operating means

Type	7-digit 7-segment LC display Hourglass as operating indicator
Display value	digit height 8 mm
Display interval	0.00 ... 99999.99 h
Reset	manually or external

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Operating current		max. 25 mA

### Inputs

Voltage	low: 0 ... 2 V DC high: 3.5 ... 30 V DC Switching threshold approx. 2.7 V
Impedance	10 kΩ
Switch-on delay	500 ms
Measuring time	≥ 200 ms

### Input 1

Input type	Counter input PNP: static PNP input
------------	-------------------------------------

### Input 2

Input type	Counter input NPN: static NPN input
------------	-------------------------------------

### Input 3

Input type	Activation input reset button: static NPN input
------------	---

### Input 4

Input type	Reset input: flank-triggered NPN input (min. 20 ms)
------------	---

### Ambient conditions

Ambient temperature	-20 ... 65 °C (-4 ... 149 °F)
Storage temperature	-25 ... 75 °C (-13 ... 167 °F)

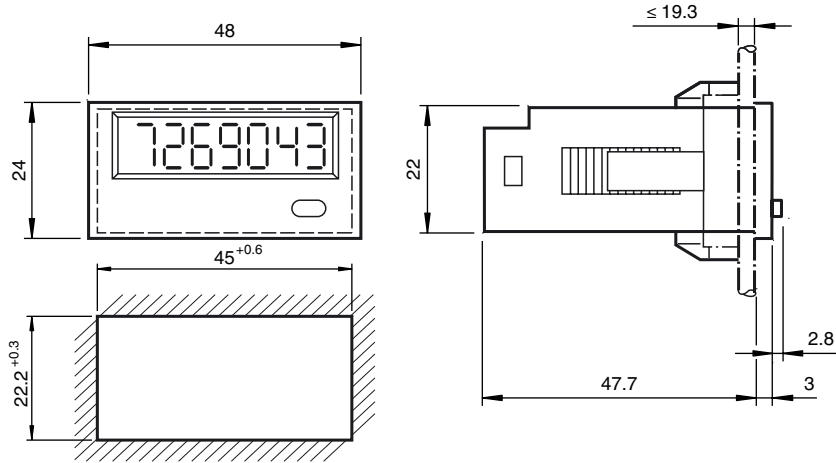
### Mechanical specifications

Protection degree	IP65 (front) IP20 (Connection side)
Mass	approx. 40 g
Dimensions	48 mm x 24 mm x 53.5 mm

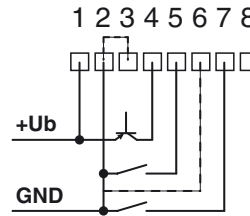
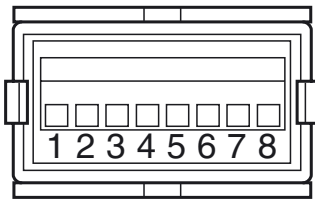
### Compliance with standards and directives

Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2:2005
Standard conformity	
Emitted interference	DIN EN 55011:2009, Class B
Mech. capacity	EN 60068-2-6:2008 10 ... 55 Hz / 1 mm / XYZ 30 min in each direction
Shock and impact resistance	device in operation: 100 G / XYZ; EN 60068-2-27:1995 device in operation: 10 G / XYZ; EN 60068-2-29:1995

Dimensions



Electrical connection



Function and terminal assignment

Terminal	Text on device	Function
1	10 - 30 V DC	Supply voltage +Ub
2	GND	0 V DC
3	GND	0 V DC
4	INP PNP	static counting input $\geq 3,5$ V
5	INP NPN	static counting input $\leq 2$ V
6	RESET MANUEL ENABLE	Reset key enable input
7	RESET	Reset input
8	n.c.	not used

Release date: 2010-03-01 12:15 Date of issue: 2013-07-01 215123\_eng.xml